

CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM
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M073 Mohave Ground Squirrel *Spermophilus mohavensis*
Family: Sciuridae Order: Rodentia Class: Mammalia

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DISTRIBUTION, ABUNDANCE, AND SEASONALITY

Restricted to the Mojave Desert in San Bernardino, Los Angeles, Kern, and Inyo cos. This species is rare throughout its range. Populations in southwestern San Bernardino Co. appear to be extirpated. Optimal habitats are open desert scrub, alkali desert scrub, and Joshua tree. Also feeds in annual grasslands. Has been found from 505-1525 m (1800-5000 ft) elevation.

SPECIFIC HABITAT REQUIREMENTS

Feeding: Eats a wide variety of green vegetation, seeds, and fruits (Burt 1936, Recht 1977, Zembal and Gall 1980). Forages on the ground or in shrubs and Joshua trees. Fruiting Joshua trees may attract concentrations of ground squirrels. This species caches food.

Cover: Uses burrows at the base of shrubs for cover.

Reproduction: Nests are built in the burrow system, which may be as long as 6 m (20 ft), and as deep as 1 m (3.3 ft) (Burt 1936, Bartholomew and Hudson 1961).

Water: Gains water from diet and drinks free water if available.

Pattern: Prefers sandy to gravelly soils; avoids rocky areas. Populations are reduced by urban development, off-road vehicle use, and agriculture.

SPECIES LIFE HISTORY

Activity Patterns: This diurnal ground squirrel is active above ground in the spring and early summer. Emergence dates vary from March to June, depending on elevation. Squirrels begin aestivation in July or August. Stored body fat is the principal source of energy for aestivation, although food is stored, and captive individuals eat during intermittent periods of wakefulness (Bartholomew and Hudson 1960,1961).

Seasonal Movements/Migration: None.

Home Range: Home range had an average size of 0.37 ha (0.91 ac), with a variation of 0.10 to 0.83 ha (0.25 to 2 ac). Home range boundaries are at the outer extent of the burrow system (Recht 1977). Burt (1936) estimated density at 15-20 animals per 2.6 km² (1 mi²).

Territory: Defends most of the home range, with little overlap between home ranges (Recht 1977).

Reproduction: Young are born from March to May with a peak in April. Litter size is about

6 (Burt 1936, Recht 1977).

Niche: Occurs sympatrically with the white-tailed antelope squirrel. The Mohave ground squirrel is competitively superior to the white-tailed antelope squirrel, but it lacks adaptations that allow the antelope squirrel to continue activity at higher temperatures (Bartholomew and Hudson 1961). Predators include badgers, foxes, coyotes, hawks, and eagles (Whitaker 1980).

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